

Product description:

Like silicone, fluorosilicone rubber is a long-lasting elastomer that is stable and compression set resistant across temperature extremes, but unlike silicone, fluorosilicone contains trifluoropropyl groups that enhance its chemical resistance to non-polar solvents, fuels, oils, acids and alkaline chemicals.

Chemistry:

Fluorosilicone rubbers are unique in their polymer chain that consists of silicone and oxygen rather than the carbon of other rubbers. The most common fluorosilicone has a trifluoropropyl ($\text{CF}_3\text{CH}_2\text{CH}_2-$) group attached to the silicone. Various other monomers are added as cross linking sites and to act as polymer chain end-blocks.

Properties:

Excellent resistance to heat and oxidative stability, outstanding low temperature flexibility, excellent resistance to ozone and sunlight (UV). They also offer a similar wide operational temperature range, which is much wider than that of fluorocarbon rubbers.

Applications:

Used for sealing applications in the aerospace industry requiring resistance to hot fuels, oils and diester based lubricants.

Service temperature:

-70 °C to 200 °C

Product ranges:

Fuel line seals, engine gaskets and O-rings.

Physical properties:

S.No	Description	ASTM Test Method	Unit	Specification
I	Hardness	D2240	Shore A	70 ± 5
II	Density	D792	gm/cc	1.45 ± 0.05
III	Tensile Strength (Min)	D412	MPa	7
IV	Elongation @ break (Min)	D412	%	200
V	Compression Set (Max) 22hrs @175°C	D395 Method B	%	20
VI	Heat Aging 70hrs @ 225°C Hardness Change Tensile Change (Max) Elongation Change (Max)	D573	Shore A % %	+ 10 - 25 - 25
VII	ASTM : 1 Oil Ageing 70hrs @ 150°C Hardness Change (Max) Tensile Change (Max) Elongation Change (Max) Volume Change (Max)	D471	Shore A % % %	± 10 - 25 - 25 - 5 to + 10

NOTE: The Above Compound Meets As Per ASTM D2000 M2 FC 707 A19 B37 E016.

The technical datasheets are derived on the basis of the service conditions and end user preference in which the values derived are given over a range of specifications which are cross checked over a variety of trials and approved with the end user conditions and calculated over a prolonged time



Industrial Spares Manufacturing and Trading Co.
No 66 & 77, Perungudi industrial estate,
Perungudi, Chennai – 600096
Tamilnadu, India
Ph: 24961147